

REMARKS

In view of the remarks that follow, reconsideration and allowance of the subject claims is respectfully requested.

Claims 1-35 and 44 have been rejected under 35 U.S.C. 103(a) over US 6,403,070 (Pataut et al.) in view of newly cited US 6,485,716 (Fei et al.). Additionally, Claims 1-35 have been rejected over US 5,221,534 (DesLauriers) in view of Pataut et al. and further in view of US 5,750,096 ("Guskey").

Claim 1 was previously amended to describe the claimed composition as being in the form of a "soft solid". As noted in the application, soft solids are a recognized class of materials in the art. See for example, page 2, lines 9 to 15: "Cosmetic compositions containing an antiperspirant that are intended for topical application to the body are available to the public in a number of product forms, of which one form that has been popular in the last 10 years is that of soft solids. These have sometimes alternatively been referred to as semi-solids or as anhydrous creams." (Emphasis added.) At page 12, lines 10 to 15, the subject application further states: "Antiperspirant composition according to the present invention do not have any separate aqueous phase present and may conveniently be referred to as "anhydrous" although it should be understood that some water may be present bound to the antiperspirant active or as a small amount of solute within the water-immiscible liquid phase".

Claim 1 has now been amended to further identify the claimed composition as being in the form of an anhydrous soft solid, however, it is respectfully submitted that even absent such an amendment, the claimed soft solids would, in view of the specification, be understood to be "anhydrous". The subject amendment is provided in an earnest effort to advance the prosecution of the application and to consolidate the issues for appeal. Entry thereof is respectfully requested.

The instant invention relates to improvements in anhydrous soft solid antiperspirant compositions. As described in the prior Amendment, antiperspirant compositions in the form of soft solids (here compositions comprising at least 60% by weight of a water immiscible carrier liquid and structurant therefore) are frequently observed to exhibit an undesirable phase separation phenomenon that results in a problem called syneresis. Pursuant to this invention it was found that by employing specified proportions of a particular mixture of carrier liquid and structurant (i.e., a carrier liquid comprising a mixture of a hydrocarbon oil and an aromatic ester oil, and a structurant comprising a di- or triblock alkylene/arylene block copolymer and wax) one could produce antiperspirant compositions in the form of soft solids which both reduced the problem of syneresis and maintained acceptable antiperspirant efficacy.

As demonstrated by the examples and comparative examples set forth in the subject application, the objective of reducing syneresis while maintaining acceptable antiperspirant efficacy was attained by a specific combination of block copolymer, wax, hydrocarbon oil and aromatic ester oil components. Indeed what is very clearly demonstrated, is just how easy it is to fail one or the other of these objectives by elimination of one or more of these components. See the specification at pages 36 to 41. It is respectfully submitted that the inventors have demonstrated the criticality of component selection to achieving these objectives. That this combination of components would provide such improved results is not obvious from the individual citations, and there is nothing in the citations that would suggest their combination for this purpose.

Patuat et al. is directed to anhydrous compositions comprising at least one deodorant active agent, at least one block copolymer, at least one fat-absorbing substance, and at least one synthetic oil. As acknowledged in the outstanding Office Action, Patuat et al. does not teach aromatic ester oil in their deodorant composition. The data in the subject application demonstrates that aromatic ester oil is a critical component to achieving the stated objectives. Compare, for example, the syneresis scores of CP10 and Example 5. Except for a portion of the hydrocarbon oil of Example 5 being replaced by benzoate oil, the compositions are identical (each contained the same amount of the same block copolymer, wax and antiperspirant active). Example 5

demonstrated good resistance to syneresis; CP10 did not. In short, the compositions disclosed by Patuat et al. lack a component that is required and critical to the subject compositions.

To remedy the deficiencies of Patuat et al., Fei et al. has been applied as a citation that "teaches the advantages of adding aromatic ester oil, such as FinsolvTM.to an antiperspirant-based composition". However, Fei et al. is directed to high efficacy gel compositions which contain 30-70 weight % of water. To one skilled in the art, it would be readily apparent that not only are these not anhydrous compositions, the properties of the Fei et al. gel compositions are going to be very different from the anhydrous stick and cream compositions, exemplified by Patuat et al. One basic and fundamental difference is that in the compositions disclosed by Fei et al., the antiperspirant active is expected to be solubilized in the aqueous phase, whereas, in the anhydrous stick and cream compositions exemplified by Patuat et al., the antiperspirant active is expected to be in particulate form. It is respectfully submitted that one skilled in the art reading Fei et al. would not be motivated to combine the references so as to selectively incorporate a C12-C15 alkyl benzoate into the compositions of Patuat et al., let alone to incorporate this material to address the problem of syneresis. Accordingly, it is submitted that the rejection of the subject claims over Patuat et al. in view of Fei et al. is erroneous and should be withdrawn

DesLauriers et al. discloses the use of block copolymers to gel hydrocarbon oils. In fact what are claimed are compositions that comprise about 80 to 99 wt.% of hydrocarbon oil and about 1 to 20 wt.% of a blend of at least two different block copolymers. Referring to DesLauriers et al. the Office Action states: "The "structurant system," comprised of wax and di or triblock copolymers, can be in a concentration ranging from 1-20% (column 6, lines 34-36)." (See the Office Action at page 5, last paragraph). To the contrary, DesLauriers is silent about the use of wax, and refers instead to mixing the block copolymers with a carrier vehicle that is an oil. At column 6, lines 24 to 33, the patent states:

In the preferred embodiment of the present invention, the blend of diblock and triblock polymers is formed in admixture with a carrier vehicle such as a natural or synthetic hydrocarbon oil or mixture thereof. Such hydrocarbon oils should have characteristics which will cause them to remain liquid at temperatures ranging from 0°C. up to about 200°C. for almost all applications. The hydrocarbon oil may be a paraffinic oil, a napthenic oil, natural mineral oil or the like. White oil is especially preferred.

As demonstrated by the subject data, wax is a critical component to the subject compositions. Compare CP8 (which lacked an organic wax, but contained both benzoate oil and a block copolymer) with Example 12 which contained a benzoate oil, block copolymer, and organic wax).

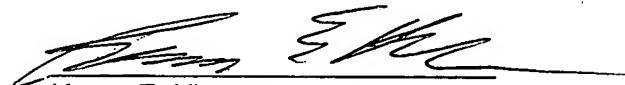
DesLauriers does discuss the addition of benzoate C12-C15 ester as an optional solvent, however, this disclosure is in the context of the use of solvents to dilute its gels and form lotions and other flowable compositions. There is nothing in DesLauriers et al. that discloses or suggests the incorporating an aromatic ester together with a wax, i.e., a material which one skilled in the art would recognize to be a structurant. If anything, given their, in context, seemingly antithetical functions, it is believed that one skilled in the art reading DesLauriers would be lead away from the incorporation of a wax, when employing an aromatic ester solvent. Further there is nothing in either reference that is discloses or even hints at the problem of syneresis or approaches to solving same. Accordingly, it is respectfully submitted that the combination of DesLauriers et al. and Patuat et al. is mere hindsight suggested only by the subject invention.

As noted in the prior amendment, Gusky is directed to solid sticks recognized to be firm compositions rather than soft solids. The sticks are disclosed as having a product harness of at least 500 gram force, which is representative of self-supporting sticks. Self supporting sticks do not have the problem of being dispensed through narrow slits or apertures. The citation is not relevant to solving the problem of controlling syneresis in soft solids, and one skilled in the art looking to solve this problem would not be motivated to combine same with either Patuat et al. or DesLauriers et al.

In view of the above amendments and remarks, reconsideration and allowance of the subject claim(s), as hereby amended, is respectfully requested.

If a telephone conversation would be of assistance in advancing the prosecution of the present application, applicants' undersigned attorney invites the Examiner to telephone at the number provided.

Respectfully submitted,



Karen E. Klumas
Registration No. 31,070
Attorney for Applicant(s)

KEK/sa
(201) 894-2332